10/522986 NITROOXYALKYL SUBTD ESTERS

STN Search lm 9/19/07

=>
Uploading C:\Program Files\Stnexp\Queries\2007 cases\10522986\species but generic.str

L5 STRUCTURE UPLOADED

=> d l5
L5 HAS NO ANSWERS
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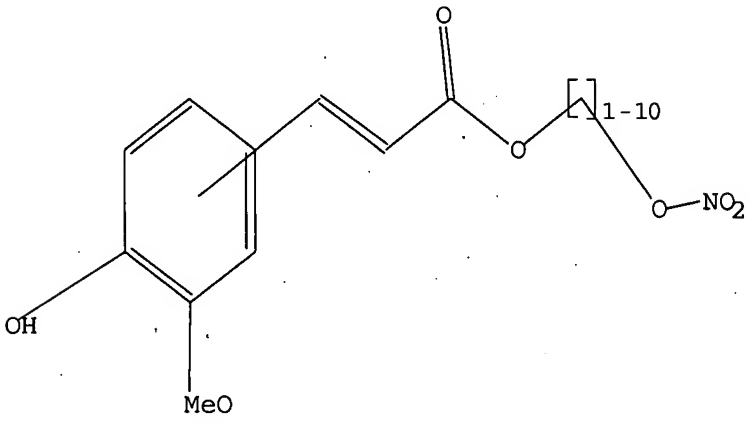

Structure attributes must be viewed using STN Express query preparation.

=> s l5
SAMPLE SEARCH INITIATED 19:14:42 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 12 TO ITERATE

100.0% PROCESSED 12 ITERATIONS 1 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 33 TO 447
PROJECTED ANSWERS: 1 TO 80

L6 1 SEA SSS SAM L5

=> s l5 sss full
FULL SEARCH INITIATED 19:14:50 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 253 TO ITERATE

100.0% PROCESSED 253 ITERATIONS 3 ANSWERS
SEARCH TIME: 00.00.01

L7 3 SEA SSS FUL L5

=> d l7 ide 1-3

L7 ANSWER 1 OF 3 REGISTRY COPYRIGHT 2007 ACS on STN
RN 918342-41-3 REGISTRY
ED Entered STN: 24 Jan 2007
CN 2-Propenoic acid, 3-(3-hydroxy-4-methoxyphenyl)-, 4-(nitrooxy)butyl ester,

EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	1	("6794372").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/09/19 19:08
L5	1	AU-2002312897-$.DID.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/09/19 19:12
L6	1	("7199141").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/09/19 19:09
L7	1	AU-2002314157-$.DID.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/09/19 19:31
L9	1	("20070112194").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/09/19 19:11
L11	1	("20050272743").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/09/19 19:11
L13	1	EP-1814840-$.DID.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/09/19 19:12
L14	2	WO-9807701-$.DID.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/09/19 19:31
L15	2	WO-9530641-$.DID.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/09/19 19:32
L16	2	WO-9509831-$.DID.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/09/19 19:32
L18	1	WO-200110814-$.DID.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2007/09/19 19:32

EAST Search History

L19	392	"560/129".CCLS.	US-PGPUB; USPAT; USOCR	OR	ON	2007/09/19 19:45
L20	81	((PIERO) near2 ("DEL SOLDATO")).INV.	US-PGPUB; USPAT; USOCR	OR	ON	2007/09/19 19:43
L21	28	((GIANCARLO) near2 (SANTUS)).INV.	US-PGPUB; USPAT; USOCR	OR	ON	2007/09/19 19:55
L22	26	((FRANCESCA) near2 (BENEDINI)).INV.	US-PGPUB; USPAT; USOCR	OR	ON	2007/09/19 19:43
L23	63	((PIERO) near2 ("DEL SOLDATO")).INV.	EPO; JPO; DERWENT	OR	ON	2007/09/19 19:43
L25	29	((GIANCARLO) near2 (SANTUS)).INV.	EPO; JPO; DERWENT	OR	ON	2007/09/19 19:44
L26	23	((FRANCESCA) near2 (BENEDINI)).INV.	EPO; JPO; DERWENT	OR	ON	2007/09/19 19:44
L27	413	l19 same20 nitrooxyalkyl$5	US-PGPUB; USPAT; USOCR	OR	ON	2007/09/19 19:45
L28	3	(("5700947") or ("6700011") or ("20050234123")).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/09/19 19:55
L29	1	("6794372").URPN.	USPAT	OR	ON	2007/09/19 19:58
L30	0	("7199141").URPN.	USPAT	OR	ON	2007/09/19 20:01

(2E)- (CA INDEX NAME)
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SR CA
LC STN Files: CA, CAPLUS

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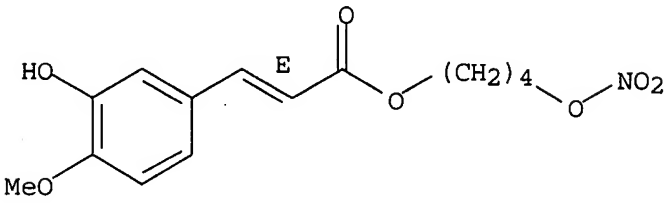
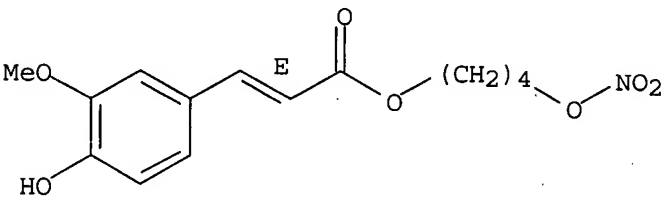


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L7 ANSWER 2 OF 3 REGISTRY COPYRIGHT 2007 ACS on STN
RN 475561-36-5 REGISTRY
ED Entered STN: 10 Dec 2002
CN 2-Propenoic acid, 3-(4-hydroxy-3-methoxyphenyl)-, 4-(nitrooxy)butyl ester, (2E)- (CA INDEX NAME)
OTHER NAMES:
CN (E)-3-(4-Hydroxy-3-methoxyphenyl)-2-propenoic acid 4-nitrooxybutyl ester
FS STEREOSEARCH
MF C14 H17 N O7
SR CA
LC STN Files: CA, CAPLUS, CASREACT, TOXCENTER, USPAT2, USPATFULL

Double bond geometry as shown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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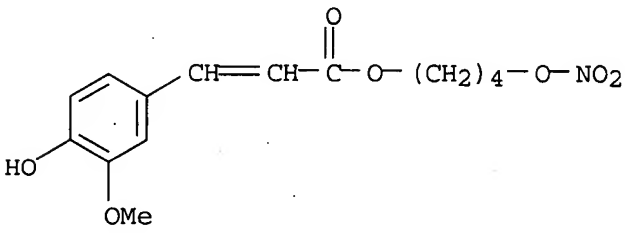
7 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L7 ANSWER 3 OF 3 REGISTRY COPYRIGHT 2007 ACS on STN
RN 352467-08-4 REGISTRY
ED Entered STN: 23 Aug 2001
CN 2-Propenoic acid, 3-(4-hydroxy-3-methoxyphenyl)-, 4-(nitrooxy)butyl ester (CA INDEX NAME)
OTHER NAMES:

10/522986 NITROOXYALKYL SUBTD ESTERS

CN NCX 2057
MF C14 H17 N O7
SR CA
LC STN Files: CA, CAPLUS, USPAT2, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

6 REFERENCES IN FILE CA (1907 TO DATE)
6 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> file hcaplu

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	178.40	398.70

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-10.14

FILE 'HCAPLUS' ENTERED AT 19:15:25 ON 19 SEP 2007
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 19 Sep 2007 VOL 147 ISS 13
FILE LAST UPDATED: 18 Sep 2007 (20070918/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d his

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     (FILE 'HOME' ENTERED AT 18:58:47 ON 19 SEP 2007)

     FILE 'REGISTRY' ENTERED AT 18:59:16 ON 19 SEP 2007
L1             STRUCTURE UPLOADED
L2           0 S L1
L3           2 S L1 SSS FULL

     FILE 'HCAPLUS' ENTERED AT 19:01:07 ON 19 SEP 2007
L4          13 S L3

     FILE 'STNGUIDE' ENTERED AT 19:02:16 ON 19 SEP 2007

     FILE 'REGISTRY' ENTERED AT 19:14:20 ON 19 SEP 2007
L5             STRUCTURE UPLOADED
L6           1 S L5
L7           3 S L5 SSS FULL

     FILE 'HCAPLUS' ENTERED AT 19:15:25 ON 19 SEP 2007

=> s l7
L8          14 L7

=> d l8 1-14 ti

L8   ANSWER 1 OF 14  HCAPLUS  COPYRIGHT 2007 ACS on STN
TI   A new class of nitric oxide-releasing derivatives of cetirizine;
     pharmacological profile in vascular and airway smooth muscle preparations

L8   ANSWER 2 OF 14  HCAPLUS  COPYRIGHT 2007 ACS on STN
TI   In vitro metabolism of (nitrooxy)butyl ester nitric oxide-releasing
     compounds: comparison with glyceryl trinitrate. [Erratum to document cited
     in CA145:075974]

L8   ANSWER 3 OF 14  HCAPLUS  COPYRIGHT 2007 ACS on STN
TI   Prostaglandin derivatives

L8   ANSWER 4 OF 14  HCAPLUS  COPYRIGHT 2007 ACS on STN
TI   Prostaglandin derivatives

L8   ANSWER 5 OF 14  HCAPLUS  COPYRIGHT 2007 ACS on STN
TI   Nitration process for preparing haloalkyl nitrates from haloalkanols

L8   ANSWER 6 OF 14  HCAPLUS  COPYRIGHT 2007 ACS on STN
TI   In vitro metabolism of (nitrooxy)butyl ester nitric oxide-releasing
     compounds: comparison with glyceryl trinitrate

L8   ANSWER 7 OF 14  HCAPLUS  COPYRIGHT 2007 ACS on STN
TI   Modulation of iNOS expression by a nitric oxide-releasing derivative of
     the natural antioxidant ferulic acid in activated RAW 264.7 macrophages

L8   ANSWER 8 OF 14  HCAPLUS  COPYRIGHT 2007 ACS on STN
TI   Preparation of prostaglandin nitrooxy derivatives for the treatment of
     glaucoma

L8   ANSWER 9 OF 14  HCAPLUS  COPYRIGHT 2007 ACS on STN
TI   Attenuation of chronic neuroinflammation by a nitric oxide-releasing
     derivative of the antioxidant ferulic acid
```

L8 ANSWER 10 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN
TI Process for preparing nitrooxyalkyl esters of carboxylic acids

L8 ANSWER 11 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN
TI Preparation of nitrate esters of amino acids, hydroxyacids, and polyols as antiepileptics.

L8 ANSWER 12 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN
TI Nitro-oxy compounds for the treatment of chronic pain

L8 ANSWER 13 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN
TI Preparation of nitrooxy cysteine derivatives for the Alzheimer's disease

L8 ANSWER 14 OF 14 HCAPLUS COPYRIGHT 2007 ACS on STN
TI Nitrate salts of antimicrobial agents

=> d his

(FILE 'HOME' ENTERED AT 18:58:47 ON 19 SEP 2007)

FILE 'REGISTRY' ENTERED AT 18:59:16 ON 19 SEP 2007
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L2 0 S L1
L3 2 S L1 SSS FULL

FILE 'HCAPLUS' ENTERED AT 19:01:07 ON 19 SEP 2007
L4 13 S L3

FILE 'STNGUIDE' ENTERED AT 19:02:16 ON 19 SEP 2007

FILE 'REGISTRY' ENTERED AT 19:14:20 ON 19 SEP 2007
L5 STRUCTURE UPLOADED
L6 1 S L5
L7 3 S L5 SSS FULL

FILE 'HCAPLUS' ENTERED AT 19:15:25 ON 19 SEP 2007
L8 14 S L7

10/522986 NITROOXYALKYL SUBTD ESTERS

STN Search MM 9/19/07

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Uploading C:\Program Files\Stnexp\Queries\2007 cases\10522986\elected species
Example2B.str

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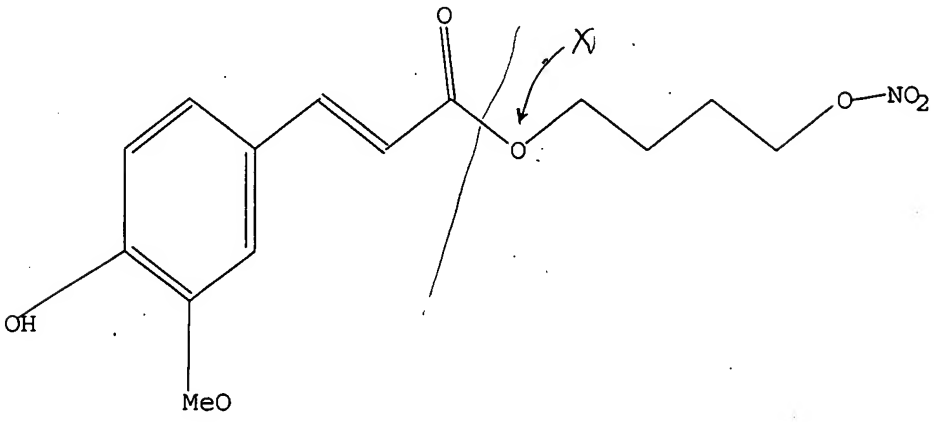


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Structure attributes must be viewed using STN Express query preparation.


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100.0% PROCESSED       12 ITERATIONS                                0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:           33 TO      447
PROJECTED ANSWERS:               0 TO        0

L2            0 SEA SSS SAM L1

=> s l1 sss full
FULL SEARCH INITIATED 18:59:47 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -      275 TO ITERATE

100.0% PROCESSED      275 ITERATIONS                               2 ANSWERS
SEARCH TIME: 00.00.01

L3            2 SEA SSS FUL L1

=> d l3 ide

L3   ANSWER 1 OF 2  REGISTRY  COPYRIGHT 2007 ACS on STN
RN   475561-36-5  REGISTRY
ED   Entered STN:  10 Dec 2002
```
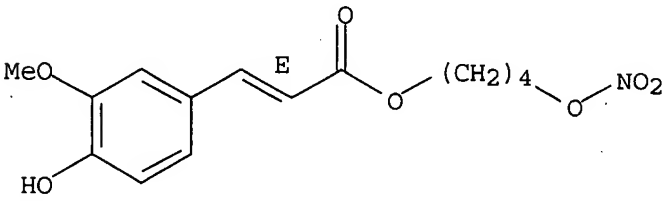

CN 2-Propenoic acid, 3-(4-hydroxy-3-methoxyphenyl)-, 4-(nitrooxy)butyl ester, (2E)- (CA INDEX NAME)
OTHER NAMES:
CN (E)-3-(4-Hydroxy-3-methoxyphenyl)-2-propenoic acid 4-nitrooxybutyl ester
FS STEREOSEARCH
MF C14 H17 N O7
SR CA
LC STN Files: CA, CAPLUS, CASREACT, TOXCENTER, USPAT2, USPATFULL

Double bond geometry as shown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

7 REFERENCES IN FILE CA (1907 TO DATE)
7 REFERENCES IN FILE CAPLUS (1907 TO DATE)

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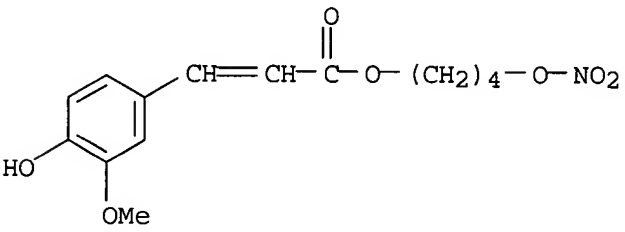
L3 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2007 ACS on STN
RN 352467-08-4 REGISTRY
ED Entered STN: 23 Aug 2001
CN 2-Propenoic acid, 3-(4-hydroxy-3-methoxyphenyl)-, 4-(nitrooxy)butyl ester (CA INDEX NAME)
OTHER NAMES:
CN NCX 2057
MF C14 H17 N O7
SR CA
LC STN Files: CA, CAPLUS, USPAT2, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

6 REFERENCES IN FILE CA (1907 TO DATE)
6 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> fil hcaplu
COST IN U.S. DOLLARS

	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	176.90	177.11

FILE 'HCAPLUS' ENTERED AT 19:01:07 ON 19 SEP 2007
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 19 Sep 2007 VOL 147 ISS 13
FILE LAST UPDATED: 18 Sep 2007 (20070918/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 13
L4 13 L3

=> d l4 1-13 ibib abs

L4 ANSWER 1 OF 13 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2007:474620 HCAPLUS
DOCUMENT NUMBER: 147:109055
TITLE: A new class of nitric oxide-releasing derivatives of cetirizine; pharmacological profile in vascular and airway smooth muscle preparations
AUTHOR(S): Larsson, A.-K.; Fumagalli, F.; DiGennaro, A.; Andersson, M.; Lundberg, J.; Edenius, C.; Govoni, M.; Monopoli, A.; Sala, A.; Dahlen, S.-E.; Folco, G. C.
CORPORATE SOURCE: Experimental Asthma and Allergy Research, Division of Physiology, The National Institute of Environmental Medicine, Karolinska Institutet, Stockholm, Swed.
SOURCE: British Journal of Pharmacology (2007), 151(1), 35-44
CODEN: BJPCBM; ISSN: 0007-1188
PUBLISHER: Nature Publishing Group
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Background and purpose: The pharmacol. properties of compds. NCX 1512 and NCX 1514, synthesized by linking the histamine H1-receptor antagonist cetirizine to NO-releasing spacer groups, are reported. The aim was to establish if the compds. retained the antihistamine action of the parent compound, to assess their efficacy as NO donors and to test if they had broader antiallergic activity than cetirizine in the lung. Exptl. approach: Antihistamine activity of NCX 1512 and NCX 1514 was investigated

in vitro in the guinea pig ileum, in tracheal rings (GPTR) and lung parenchymal strips (GPLP) of the guinea-pig. The NO-releasing capacity was investigated in vascular prepns.; the isolated rabbit and guinea-pig aorta and guinea-pig pulmonary artery. Kinetics of NO release were assessed in a rat whole blood assay. Key results: Both NCX 1512 and NCX 1514 retained activity as H1-receptor antagonists in the guinea pig ileum and airway prepns. The NO-releasing NCX compds. relaxed the rabbit aorta, an action prevented by the guanylyl cyclase inhibitor ODQ (10 μM). NCX 1512 and NCX 1514 did not relax the antigen (ovalbumin) pre-contracted GPTR, whereas the NO donors NCX 2057 and DEA-NONOate relaxed guinea-pig pre-contracted vascular and tracheal prepns. Cetirizine (1 - 100 μM) and NCX 1512 (1 - 100 μM) reduced the cumulative (0.01-100 μg ml-1) ovalbumin-induced constriction in GPTR, but had no significant effect in GPLP.Conclusions and implications:NCX 1512 and NCX 1514 act as antihistamines and NO donors. However, there was no improved effect compared to cetirizine on antigen-induced constriction of the central and peripheral lung.

REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 13 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2007:35436 HCAPLUS
DOCUMENT NUMBER: 146:155275
TITLE: In vitro metabolism of (nitrooxy)butyl ester nitric oxide-releasing compounds: comparison with glyceryl trinitrate. [Erratum to document cited in CA145:075974]
AUTHOR(S): Govoni, Mirco; Casagrande, Simona; Maucci, Raffaella; Chiroli, Valerio; Tocchetti, Paola
CORPORATE SOURCE: Departments of Drug Metabolism and Pharmacokinetics, NicOx Research Institute, Milan, Italy
SOURCE: Journal of Pharmacology and Experimental Therapeutics (2007), 320(1), 497
CODEN: JPETAB; ISSN: 0022-3565
PUBLISHER: American Society for Pharmacology and Experimental Therapeutics
DOCUMENT TYPE: Journal
LANGUAGE: English
AB On page 753, Figure 1 is incorrect; the correct version of fgiure 1 is given.

L4 ANSWER 3 OF 13 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2007:13633 HCAPLUS
DOCUMENT NUMBER: 146:121747
TITLE: Prostaglandin derivatives
INVENTOR(S): Benedini, Francesca; Chiroli, Valerio; Chong, Wesley Kwan Mung; Krauss, Achim; Niesman, Michael Ross; Ongini, Ennio
PATENT ASSIGNEE(S): Pfizer Inc., USA; Nicox S.A.
SOURCE: PCT Int. Appl., 110pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 2007000641 A2 20070104 WO 2006-IB1727 20060619
WO 2007000641 A3 20070322
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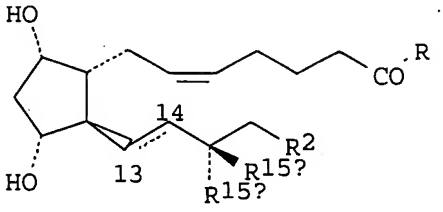
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
NL 1032046 A1 20070102 NL 2006-1032046 20060622
NL 1032046 C2 20070424
PRIORITY APPLN. INFO.: US 2005-696383P P 20050629
OTHER SOURCE(S): MARPAT 146:121747
GI



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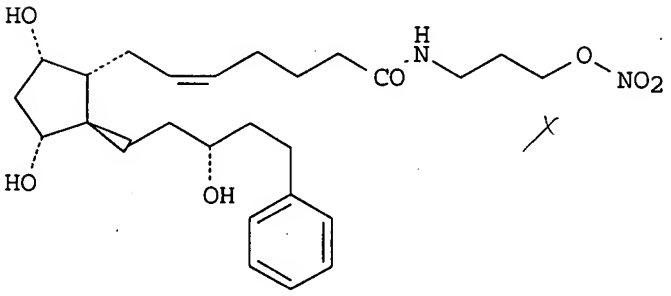


II

AB Nitrooxy derivs. of prostaglandin amides, such as I [R = NH-X-ONO2, NH-X = amide linking group in which X may be alkylene, arylene, alkenylene, ether, thioether or NH-X is an amino acid residue or a combination thereof; R1 = CH2Ph, OPh, OC6H4-3-CF3, OC6H4-3-Cl, (CH2)5Me; 13,14-bond = (E)-double or single; R15a = OH, R15b = H or R15aR15b = O], with improved pharmacol. activity and enhanced tolerability were prepared for therapeutic use in ophthalmic compns. for the treatment of glaucoma and ocular hypertension. Thus, prostaglandin amide II was prepared via an amidation reaction of the bis-O-(tert-butyltrimethylsilyl) protected derivative of latanoprost acid with the hydrobromide salt of Br(CH2)3NH2 using TEA, EDAC and DMAP in CH2Cl2, conversion of the resulting brominated amide to its nitrooxy derivative using AgNO3 in MeCN, and finally, desilylation of the resulting nitrooxy derivative using TBAF in THF. The prepared prostaglandin

amides were assayed in rabbits for their effect on hypertonic saline-induced transient intraocular pressure rise.

L4 ANSWER 4 OF 13 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:510632 HCAPLUS
DOCUMENT NUMBER: 145:7752
TITLE: Nitration process for preparing haloalkyl nitrates from haloalkanols
INVENTOR(S): Rivolta, Romano; Finlander, Peter
PATENT ASSIGNEE(S): Nicox S.A., Fr.
SOURCE: PCT Int. Appl., 14 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006056535	A1	20060601	WO 2005-EP55865	20051109
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
AU 2005308881	A1	20060601	AU 2005-308881	20051109
CA 2589184	A1	20060601	CA 2005-2589184	20051109
EP 1814840	A1	20070808	EP 2005-816096	20051109
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, YU				
NO 2007003227	A	20070622	NO 2007-3227	20070622

PRIORITY APPLN. INFO.: EP 2004-292785 A 20041125
WO 2005-EP55865 W 20051109
OTHER SOURCE(S): CASREACT 145:7752; MARPAT 145:7752

AB A nitration process for the high-yield preparation of haloalkyl nitrates X(CH2)nONO2 (X = Cl, Br, I; n = 3-6; e.g., 4-bromobutyl nitrate) comprises the slow addition of haloalkanols X(CH2)nOH (e.g., 4-bromo-1-butanol) to a nitrating agent selected from concentrated nitric acid and concentrated sulfuric acid (i.e., sulfonitric mixture), nitric acid alone, NaNO2 in trifluoroacetic acid, and nitronium salts (e.g., NO2BF4) and an organic solvent selected from CH2Cl2, CHCl3, CCl4, perfluorohexane, and perfluoroheptane, where this nitration process is characterized by the fact that the product haloalkyl nitrate is present in the solvent in a concentration of ≤20%.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 13 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:412592 HCAPLUS
DOCUMENT NUMBER: 145:75974

TITLE: In vitro metabolism of (nitrooxy)butyl ester nitric oxide-releasing compounds: comparison with glyceryl trinitrate
AUTHOR(S): Govoni, Mirco; Casagrande, Simona; Maucci, Raffaella; Chiroli, Valerio; Tocchetti, Paola
CORPORATE SOURCE: Departments of Drug Metabolism and Pharmacokinetics, NicOx Research Institute, Milan, Italy
SOURCE: Journal of Pharmacology and Experimental Therapeutics (2006), 317(2), 752-761
CODEN: JPETAB; ISSN: 0022-3565
PUBLISHER: American Society for Pharmacology and Experimental Therapeutics
DOCUMENT TYPE: Journal
LANGUAGE: English

AB We investigated the in vitro metabolism of two (nitrooxy)butyl ester nitric oxide (NO) donor derivs. of flurbiprofen and ferulic acid, [1,1'-biphenyl]-4-acetic acid-2-fluoro-α-methyl-4-(nitrooxy)butyl ester (HCT 1026) and 3-(4-hydroxy-3-methoxyphenyl)-2-propenoic acid 4-(nitrooxy)butyl ester (NCX 2057), resp., in rat blood plasma and liver subcellular fractions compared with (nitrooxy)butyl alc. (NOBA) and glyceryl trinitrate (GTN). HCT 1026 and NCX 2057 undergo rapid ubiquitous carboxyl ester hydrolysis to their resp. parent compds. and NOBA. The nitrate moiety of this latter is subsequently metabolized to inorg. nitrogen oxides (NOx), predominantly in liver cytosol by glutathione S-transferase (GST) and to a lesser extent in liver mitochondria. If, however, in liver cytosol, the carboxyl ester hydrolysis is prevented by an esterase inhibitor, the metabolism at the nitrate moiety level does not occur. In blood plasma, HCT 1026 and NCX 2057 are not metabolized to NOx, whereas a slow but sustained NO generation in deoxygenated whole blood as detected by ESR indicates the involvement of erythrocytes in the bioactivation of these compds. Differently from NOBA, GTN is also metabolized in blood plasma and more quickly metabolized by different GST isoforms in liver cytosol. The cytosolic GST-mediated denitration of these organic nitrates in liver limits their interaction with other intracellular compartments to possible generation of NO and/or their subsequent availability and bioactivation in the systemic circulation and extrahepatic tissues. We show the possibility of modulating the activity of hepatic cytosolic enzymes involved in the metabolism of (nitrooxy)butyl ester compds., thus increasing the therapeutic potential of this class of compds.

REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 13 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:181639 HCAPLUS
DOCUMENT NUMBER: 144:404277
TITLE: Modulation of iNOS expression by a nitric oxide-releasing derivative of the natural antioxidant ferulic acid in activated RAW 264.7 macrophages
AUTHOR(S): Ronchetti, Daniela; Impagnatiello, Francesco; Guzzetta, Massimiliano; Gasparini, Laura; Borgatti, Monica; Gambari, Roberto; Ongini, Ennio
CORPORATE SOURCE: Nicox Research Institute, Milan, Bresso, 20091, Italy
SOURCE: European Journal of Pharmacology (2006), 532(1-2), 162-169
CODEN: EJPHAZ; ISSN: 0014-2999
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal

LANGUAGE: English

AB We have previously reported that NCX 2057, a new chemical entity bearing a nitric oxide (NO)-releasing moiety linked to the natural antioxidant ferulic acid, shows marked anti-inflammatory properties in a model of chronic brain inflammation. We have now studied the effects of NCX 2057 and its metabolic products, ferulic acid and NCX 2059, on inducible nitric oxide synthase (iNOS) expression and function in lipopolysaccharide/interferon-γ (LPS/IFNγ)-stimulated RAW 264.7 macrophages. NCX 2057 inhibited iNOS mRNA and protein expression (IC50 = 6.2±1.0 μM) without altering iNOS protein degradation rate. NCX 2057 also decreased the levels of LPS/IFNγ-induced nitrite accumulation (IC50 = 4.3±0.7 μM) in RAW 264.7 cells. Conversely, NCX 2059, which does not possess NO-donating properties, was only weakly effective (IC50 > 100 μM) and ferulic acid was inactive. To understand further the mechanisms underlying anti-inflammatory properties we studied the effects of NCX 2057 on selected transcription factors. Unlike ferulic acid, NCX 2057 inhibited LPS-induced translocation/activation of the nuclear factor, NF-κB, while other transcription factors, such as, Sp1, NF-IL2A and STAT-1 were not affected. The present data support the concept that NO adds important anti-inflammatory properties to ferulic acid. Thus, NCX 2057 represents a new prototype drug for the treatment of disorders associated with chronic inflammation and oxidative stress.

REFERENCE COUNT: 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 7 OF 13 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2005:673257 HCAPLUS

DOCUMENT NUMBER: 143:153219

TITLE: Preparation of prostaglandin nitrooxy derivatives for the treatment of glaucoma

INVENTOR(S): Ongini, Ennio; Benedini, Francesca; Chiroli, Valerio; Del Soldato, Piero

PATENT ASSIGNEE(S): Nicox, S. A., Fr.

SOURCE: PCT Int. Appl., 82 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

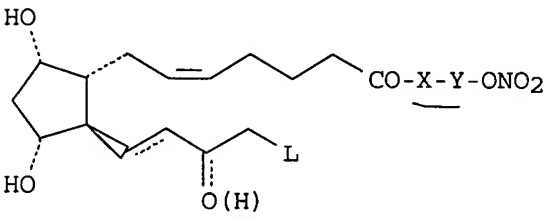
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005068421	A1	20050728	WO 2004-EP14820	20041227
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2004313688	A1	20050728	AU 2004-313688	20041227
CA 2551409	A1	20050728	CA 2004-2551409	20041227
EP 1704141	A1	20060927	EP 2004-804405	20041227
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				

IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU

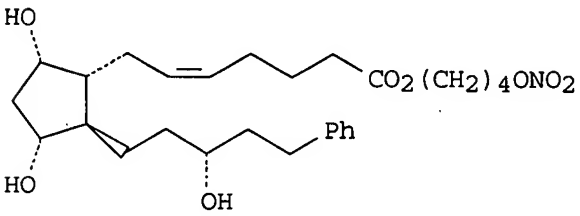
CN 1906159	A	20070131	CN 2004-80039805		20041227
BR 2004018245	A	20070417	BR 2004-18245		20041227
JP 2007518716	T	20070712	JP 2006-546105		20041227
US 2005272743	A1	20051208	US 2005-29698		20050105
IN 2006DN03240	A	20070824	IN 2006-DN3240		20060606
MX 2006PA07678	A	20060901	MX 2006-PA7678		20060704
NO 2006003567	A	20060907	NO 2006-3567		20060807
PRIORITY APPLN. INFO.:			EP 2004-100001	A	20040105
			WO 2004-EP14820	W	20041227

OTHER SOURCE(S): MARPAT 143:153219

GI



I



II

AB Prostaglandin nitrooxy derivs. of formula I [L = benzyl, 3-(trifluoromethyl)phenoxy, 3-chlorophenoxy, (CH2)5Me; X = O, S, NH; Y = alkylene, cycloalkylene, phenylene, etc.] are prepared which have improved pharmacol. activity and enhanced tolerability. They can be employed for the treatment of glaucoma and ocular hypertension. Thus, II was prepared from 4-bromobutyl nitrate (preparation given) and latanoprost acid. The EC50 of II was 2.4 μM for cGMP formation in rat pheochromocytoma cells. Ophthalmic compns. containing I are described.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 8 OF 13 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:356746 HCAPLUS

DOCUMENT NUMBER: 141:46944

TITLE: Attenuation of chronic neuroinflammation by a nitric oxide-releasing derivative of the antioxidant ferulic acid

AUTHOR(S): Wenk, Gary L.; McGann-Gramling, Kristin; Hauss-Wegrzyniak, Beatrice; Ronchetti, Daniela; Maucci, Raffaella; Rosi, Susanna; Gasparini, Laura; Ongini, Ennio

CORPORATE SOURCE: Division of Neural Systems, Memory and Aging,

University of Arizona, Tucson, AZ, 85724, USA
SOURCE: Journal of Neurochemistry (2004), 89(2), 484-493
CODEN: JONRA9; ISSN: 0022-3042
PUBLISHER: Blackwell Publishing Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Chronic neuroinflammation and oxidative stress contribute to the neurodegeneration associated with Alzheimer's disease and represent targets for therapy. Ferulic acid is a natural compound that expresses antioxidant and anti-inflammatory activities. Nitric oxide is also a key modulator of inflammatory responses. Grafting a nitric oxide-releasing moiety onto anti-inflammatory drugs results in enhanced anti-inflammatory activity. We compared the effectiveness of ferulic acid with a novel nitric oxide-releasing derivative of ferulic acid in an animal model of chronic neuroinflammation that reproduces many interesting features of Alzheimer's disease. Lipopolysaccharide was infused into the 4th ventricle of young rats for 14 days. Various doses of ferulic acid or its nitric oxide-releasing derivative were administered daily. Both drugs produced a dose-dependent reduction in microglia activation within the temporal lobe. However, the nitric oxide-releasing ferulic acid derivative was significantly more potent. If we delayed the initiation of therapy for 14 days, we found no reduction in microglial activation. In addition, both drugs demonstrated antioxidant and hydroxyl radical scavenging abilities in in vitro studies. Overall, our results predict that a treatment using nitric oxide-releasing ferulic acid may attenuate the processes that drive the pathol. associated with Alzheimer's disease if the treatment is initiated before the neuroinflammatory processes can develop.
REFERENCE COUNT: 66 THERE ARE 66 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 9 OF 13 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:203792 HCAPLUS
DOCUMENT NUMBER: 140:253345
TITLE: Process for preparing nitrooxyalkyl esters of carboxylic acids
INVENTOR(S): Del Soldato, Piero; Santus, Giancarlo; Benedini, Francesca
PATENT ASSIGNEE(S): Nicox S.A., Fr.
SOURCE: PCT Int. Appl., 36 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004020385	A1	20040311	WO 2003-EP8700	20030806

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2003266261	A1	20040319	AU 2003-266261		20030806
EP 1537070	A1	20050608	EP 2003-790866		20030806
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK					
CN 1678560	A	20051005	CN 2003-820605		20030806
JP 2005536559	T	20051202	JP 2004-532055		20030806
ZA 2005000890	A	20060222	ZA 2005-890		20050131
US 2007112194	A1	20070517	US 2006-522986		20060913
PRIORITY APPLN. INFO.:			IT 2002-MI1861	A	20020829
			WO 2003-EP8700	W	20030806

OTHER SOURCE(S): CASREACT 140:253345; MARPAT 140:253345

AB RCO2(CR1R2)m(CR3R4)n(CR5R6)oXp(CR7R8)q(CR9R10)r(CR11R12)sONO2 [R = residue of a pharmaceutically active compound, ferulic acid; R1-R12 = H, alkyl, aralkyl; m, n, o, q, r, s = 0-6; p = 0, 1; X = O, S, SO, SO2, NR13, PR13, (substituted) cycloalkylene, arylene, heterocyclylene; R13 = H, alkyl], were prepared by reaction of RCO2Z (R as defined above; Z = H, Li+, Na+, K+, Ca++, Mg++, tetralkylammonium, tetralkylphosphonium) with Y(CR1R2)m(CR3R4)n(CR5R6)oXp(CR7R8)q(CR9R10)r(CR11R12)sONO2 [Y = Br, Cl, iodo, BF4, SbF6, FSO3, ASO3; A = (substituted) alkyl; other variables as defined above]. Thus, ferulic acid, 4-nitrooxybutyl bromide, and Et3N were stirred 3 days in DMF to give 65% ferulic acid 4-nitrooxybutyl ester.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 10 OF 13 HCAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:5915 HCAPLUS

DOCUMENT NUMBER: 138:73081

TITLE: Preparation of nitrate esters of amino acids, hydroxyacids, and polyols as antiepileptics.

INVENTOR(S): Ongini, Ennio; Del Soldato, Piero

PATENT ASSIGNEE(S): Nicox S.A., Fr.

SOURCE: PCT Int. Appl., 62 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2003000643	A1	20030103	WO 2002-EP6389		20020611
W: AE, AG, AL, AU, BA, BB, BG, BR, BZ, CA, CN, CO, CR, CU, CZ, DM, DZ, EC, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MA, MG, MK, MN, MX, NO, NZ, OM, PH, PL, RO, SG, SI, SK, TN, TR, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM					
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
IT 2001MI1307	A1	20021223	IT 2001-MI1307		20010621
AU 2002314157	A1	20030108	AU 2002-314157		20020611
PRIORITY APPLN. INFO.:			IT 2001-MI1307	A	20010621
			WO 2002-EP6389	W	20020611

OTHER SOURCE(S): MARPAT 138:73081

AB ABbDdNO2 [b, d = 0, 1; b, d cannot both = 0; A = RT1; R = R0R1R2W(CH2)m; W = C, N; m, n = 0-2; R0 = H, (CH2)nNHR1a; R1a = H, COR1h, CO2R1h; R1h = alkyl, Ph, PhCH2, etc.; R1 = H, electron pair; R2 = (substituted) Ph, PhCH2, amidino, etc.; B = TbX2Tbi; Tb = CO, X; Tbi = (CO)tx, Xtxx; tx, txx

= 0, 1; X2 = bivalent radical; D = TcY; Tc = CO, X; Y = alkyleneoxy, cycloalkylene, [CH2CH(ONO2)CH2O]nf, (CH2)n3C6H4(CH2)n31O, etc.; nf = 1-6; n3 = 0-5; n31 = 1-3; with provisos], were prepared as antiepileptics (no data). Thus, 1-(N-tert-butoxycarbonylaminomethyl)cyclohexaneacetic acid (preparation given), 2-methoxy-4-[(1E)-3-[4-(nitrooxy)butoxy]-3-oxy-1-propenyl]phenol (preparation given), dicyclohexylcarbodiimide, and N,N-dimethylaminopyridine were stirred 3 h at room temperature in CHCl3/DMF to give 1-(N-tert-butoxycarbonylaminomethyl)cyclohexaneacetic acid 2-methoxy-4-[(1E)-3-[4-(nitrooxy)butoxy]-3-oxy-1-propenyl]phenyl ester. This was stirred with HCl in EtOAc to give 1-(aminomethyl)cyclohexaneaceti c acid 2-methoxy-4-[(1E)-3-[4-(nitrooxy)butoxy]-3-oxy-1-propenyl]phenyl ester hydrochloride.

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 11 OF 13 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:5914 HCAPLUS
DOCUMENT NUMBER: 138:66698
TITLE: Nitro-oxy compounds for the treatment of chronic pain
INVENTOR(S): Del Soldato, Piero; Ongini, Ennio
PATENT ASSIGNEE(S): Nicox S.A., Fr.
SOURCE: PCT Int. Appl., 62 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003000642	A2	20030103	WO 2002-EP5166	20020510
WO 2003000642	A3	20030327		
W: AE, AG, AL, AU, BA, BB, BG, BR, BZ, CA, CN, CO, CR, CU, CZ, DM, DZ, EC, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MA, MG, MK, MN, MX, NO, NZ, OM, PH, PL, RO, SG, SI, SK, TN, TR, TT, UA, US, UZ, VN, YU, ZA				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
IT 2001MI1308	A1	20021223	IT 2001-MI1308	20010621
CA 2450538	A1	20030103	CA 2002-2450538	20020510
AU 2002344965	A1	20030108	AU 2002-344965	20020510
EP 1417165	A2	20040512	EP 2002-742986	20020510
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2004171682	A1	20040902	US 2003-480805	20031219
US 7199141	B2	20070403		
US 2007161576	A1	20070712	US 2007-705752	20070214

PRIORITY APPLN. INFO.:
IT 2001-MI1308 A 20010621
WO 2002-EP5166 W 20020510
US 2003-480805 A3 20031219

OTHER SOURCE(S): MARPAT 138:66698

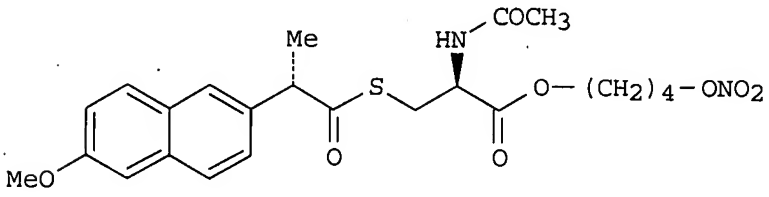
AB Nitro-oxy derivative compds. or salts thereof having the general formula A(B)b0(C)c0NO2 (b0, c0 = 0, 1; A = RT1; R = radical of analgesic drug for chronic pain, in particular for neuropathic pain; B is such that its precursor is selected from amino acids, hydroxyacids, polyalcs., compds. containing at least one acid function; C is a bivalent radical containing an

aliphatic, heterocyclic or aromatic radical). Preparation of selected compds., e.g.
1-(aminomethyl)cyclohexaneacetic acid 3-(nitrooxymethyl)phenyl hydrochloride ester, is described.

L4 ANSWER 12 OF 13 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2002:888544 HCAPLUS
DOCUMENT NUMBER: 137:369833
TITLE: Preparation of nitrooxy cysteine derivatives for the Alzheimer's disease
INVENTOR(S): Del Soldato, Piero
PATENT ASSIGNEE(S): Nicox S.A., Fr.
SOURCE: PCT Int. Appl., 58 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2002092072	A2	20021121	WO 2002-EP5165		20020510
WO 2002092072	A3	20030501			
W: AE, AG, AL, AU, BA, BB, BG, BR, BZ, CA, CN, CR, CU, CZ, DM, DZ, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MA, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR, TT, UA, US, UZ, VN, YU, ZA					
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
IT 2001MI0985	A1	20021115	IT 2001-MI985		20010515
AU 2002312897	A1	20021125	AU 2002-312897		20020510
PRIORITY APPLN. INFO.:			IT 2001-MI985	A	20010515
			WO 2002-EP5165	W	20020510

OTHER SOURCE(S): MARPAT 137:369833
GI



II

AB Title compds. A-Bn-Cm-NO2 [n, m = 0-1 with the proviso that m, n cannot be contemporaneously equal to 0; A = R-T1; R = (hetero)cycle; T1 = (CO)0-1, X0-1; X = O, S, amino; B = T2-X2-T3; T2-3 = CO, X, etc.; X2 = bivalent linking group; C = bivalent linking radical; I] were prepared For instance, 6-methoxy-α-methyl-2-naphthalenacetic acid was coupled to (S)-N-acetylcysteine (DMF/CHCl3, CDI, 12 h), the product converted to the 4-bromobutyl ester (THF, Ph3P, CBr4, 24 h) and that intermediate treated with AgNO3 (CH3CN, reflux, 7 h) to afford II. Nitrooxy derivs. of the invention are effective in inhibiting LPS-induced neurodegeneration and

are useful in the treatment of Alzheimer's disease.

L4 ANSWER 13 OF 13 HCAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2001:564833 HCAPLUS
DOCUMENT NUMBER: 135:152367
TITLE: Nitrate salts of antimicrobial agents
INVENTOR(S): Del Soldato, Piero; Benedini, Francesca; Antognazza, Patrizia
PATENT ASSIGNEE(S): Nicox S.A., Fr.
SOURCE: PCT Int. Appl., 105 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001054691	A1	20010802	WO 2001-EP430	20010116
W: AE, AL, AU, BA, BB, BG, BR, CA, CN, CR, CU, CZ, DM, EE, GE, HR, HU, ID, IL, IN, IS, JP, KP, KR, LC, LK, LR, LT, LV, MA, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR, TT, UA, US, UZ, VN, YU, ZA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
IT 2000MI0092	A1	20010726	IT 2000-MI92	20000126
IT 1317735	B1	20030715		
CA 2397754	A1	20010802	CA 2001-2397754	20010116
AU 200137308	A	20010807	AU 2001-37308	20010116
AU 785330	B2	20070118		
BR 2001007824	A	20021105	BR 2001-7824	20010116
EP 1253924	A1	20021106	EP 2001-909631	20010116
EP 1253924	B1	20060419		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2003520814	T	20030708	JP 2001-554675	20010116
AT 323488	T	20060515	AT 2001-909631	20010116
PT 1253924	T	20060929	PT 2001-909631	20010116
RU 2288231	C2	20061127	RU 2002-120480	20010116
ES 2262629	T3	20061201	ES 2001-1909631	20010116
MX 2002PA07239	A	20021209	MX 2002-PA7239	20020724
US 2003105066	A1	20030605	US 2002-181424	20020724
US 6794372	B2	20040921		

PRIORITY APPLN. INFO.: IT 2000-MI92 A 20000126
WO 2001-EP430 W 20010116
OTHER SOURCE(S): MARPAT 135:152367
AB Nitrate salts of antiviral, antifungal, and antibacterial agents such as acyclovir, tetracycline, etc. were prepared Growth inhibition of, e.g., an S. Aureus strain by title compds. was demonstrated.
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> fil stng
COST IN U.S. DOLLARS

	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	41.99	219.10

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-10.14	-10.14

FILE 'STNGUIDE' ENTERED AT 19:02:16 ON 19 SEP 2007

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Sep 14, 2007 (20070914/UP).

10/522986 NITROOXYALKYL SUBTD ESTERS

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(FILE 'HOME' ENTERED AT 18:58:47 ON 19 SEP 2007)

FILE 'REGISTRY' ENTERED AT 18:59:16 ON 19 SEP 2007
L1 STRUCTURE UPLOADED
L2 0 S L1
L3 2 S L1 SSS FULL

FILE 'HCAPLUS' ENTERED AT 19:01:07 ON 19 SEP 2007
L4 13 S L3

FILE 'STNGUIDE' ENTERED AT 19:02:16 ON 19 SEP 2007